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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/295,913	04/21/1999	HOWARD B. SOSIN	2001611-0008	7739

7590 08/16/2004

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BOSTON, MA 021092891

EXAMINER

CRAIG, DWIN M

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/295,913

Applicant(s)

SOSIN, HOWARD B.

Examiner

Dwin M Craig

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 25-45 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6-18, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-24 are presented for reconsideration in view of Applicant's arguments and amended claim language dated 6 May 2004.

Response to Arguments

2. Applicant's arguments filed on 6 May 2004 have been fully considered and are persuasive.

2.1 Regarding the rejections of Claims 1, 5 and 19:

Applicant argued:

"...the Examiner does not explain or point out how Wood PCT combines these terms to teach a method that includes a step of "determining a tempo function relating to club length for a particular golfer."

The Examiner asserts that the Applicants arguments are persuasive and withdraws the prior art rejections of Claims 1, 5 and 19.

2.2 Regarding the rejections of Claim 23:

Applicant argued:

In particular, the Examiner does not point to any teachings in Wood that relate to the following steps and limitations of claim 23:

(1)having the golfer swing a test club to determine its perceived length;

The Examiner has found Applicant's arguments to be persuasive and withdraws the art rejection of independent Claim 23.

The Examiner, based on Applicant's clarification of the meets and bounds of the current claim language, has performed an updated search. The Examiner thanks the Applicant for clearly explaining the meaning of the current claim language and pointing out the shortcomings of the Examiner's earlier search results. The updated search has revealed new art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Independent **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Cook et al. U.S. Patent 5,879,241** in view of **Teder U.S. Patent 5,700,204**.

3.1 As regards Independent **Claim 1** the *Cook et al.* discloses a method of designing a customized golf club (**Col. 2 Lines 1-34**), determining a tempo function relating tempo to club length for a particular golfer (**Figures 1 & 3, Col. 3 Lines 33-37 Col. 4 Lines 49-64**), a perceived force function using the weight of the head of the club as well as the length of the club (**Col. 7 Lines 30-67 and Col. 8 Lines 1-58**), using parameters including target distance for the club (**TABLE 1 and TABLE 2**), club length and shaft flexibility (**Col. 3 Lines 50-58**) and using this data to calculate optimum values for the selected design parameter (**Col. 11 Lines 30-67**).

However, the *Cook et al.* reference does not expressly disclose calculating a preferred trajectory for a golf ball.

The Examiner notes that the preferred trajectory of a golf ball is known in the Golf art as “baseline loft” or “loft angle”. The *Teder* reference discloses calculating a preferred trajectory (**Figures 1 & 8 & 9-17, Col. 1 Lines 27-39, and “loft angle” Col. 3 Lines 60-65**).

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to have added into the design criteria of a custom manufactured golf club the ability to model the “loft angle” of a golf ball being designed for a specific golfer as disclosed in the *Teder* reference because, of the removal of the need for any empirical calculations and the less expensive golf ball determination means disclosed in the *Teder* reference (**Teder Col. 4 Lines 6-24**).

4. Independent **Claim 23** and dependent **Claim 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Benoit U.S. Patent 4,674,324** in view of **Herber U.S. Patent 5,865,684**.

4.1 As regards independent **Claim 23** the *Benoit* reference discloses the determination of the center of gyration of a golf club (**Figures 1-8, Col. 2 Lines 25-46**).

However, the *Benoit* reference does not expressly disclose using a test golf club.

The *Herber* reference discloses the use of a test golf club (**Figure 6, Col. 5 Lines 53-65**).

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to have used a test golf club to determine if the center of gyration was

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proper for the purpose of manufacturing a custom golf club because, the cost involved in manufacturing a custom golf club is such that it is useful and cost effective to test out the design before the actual club is created (**Herber, Col. 2 Lines 66-67 and Col. 3 Lines 1-6**).

4.2 As regards dependent **Claim 24** the *Benoit* reference discloses optimization (**Col. 4 Lines 22-26**).

Allowable Subject Matter

5. **Claims 5, 19 and 20** are allowed.

5.1 **Claims 2-4, 6-18 and 20-22** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. This action is **NON-FINAL**. Claims 25-45 are cancelled. Claims 1-24 have been elected. **Claims 1, 23 and 24** are rejected. **Claims 2-4, 6-18 and 20-22** are objected to, **Claims 5, 19 and 20** are allowed.

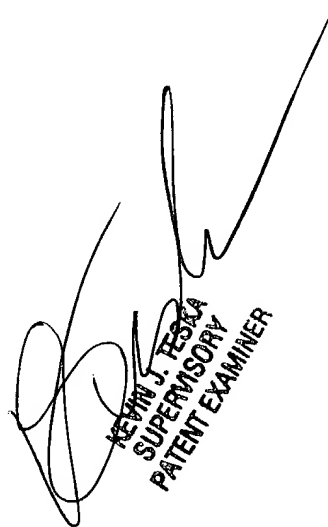
6.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwain M Craig whose telephone number is 703 305-7150. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703 305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMC



KEVIN J. TESLA
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